

## P- loop

Ae-dNK MAAAI~~GP~~ERLG---VA~~GKKPFTVF~~EGNIGSGKTTFLNHFEK~~PKDRV~~ICLLTEPVEKWRDC  
 Ag-dNK -MPPIASE~~RLG~~---AS~~GKKPFTVF~~EGNIGSGKTTFLNHFEK~~END~~-ICLLTEPVEKWRNC  
 Dm-dNK MAEAASCARKG~~TKY~~AEGTQ~~PFTVL~~EGNIGSGKTTFLNHFEK~~YKND~~ICLLTEPVEKWRNV  
 Bm-dNK ---MS-----ANNV~~KPFTVF~~EGNIGSGKTTFLNHFEK~~ROED~~-ITLLTEPVE~~MWRDL~~

Ae-dNK GGVNLL~~DL~~MYKE~~PHRWAMPFO~~YVTLT~~MLNMHTYQ~~TDKSVKLMERS~~MS~~SARYCFVENMLA  
 Ag-dNK GGVNLL~~DL~~MYKE~~SHRWAMPFO~~YVTLT~~MLDMHTCQ~~TDKSVKLMERS~~SL~~SARNCFVESMLA  
 Dm-dNK NGVNLL~~EL~~MYK~~DPKWAMPFO~~SYVTLT~~MLQSEHTAPT~~NKKLMERS~~SL~~SARYCFVENMRR  
 Bm-dNK KGCNLL~~EL~~MYK~~DPKWAMPFO~~SYVSLT~~MLDMHRRPAPT~~PVKLMERS~~SL~~SARYCFVEHLMR

Ae-dNK S~~GS~~LHQGMYN~~I~~LOEWY~~E~~FIHAN~~I~~HIQAD~~L~~LIVYLRTS~~PE~~IVYER~~M~~KKRARSEESCVPLKYL  
 Ag-dNK S~~GS~~LHQGMYN~~V~~LOEWY~~D~~FICCN~~I~~HIQAD~~L~~LIVYLRTS~~PE~~VYER~~M~~KKRARSEESCVPLEYL  
 Dm-dNK N~~GS~~LHQGMYN~~T~~LEWYK~~F~~IEESI~~H~~IQAD~~L~~LIVYLRTS~~PE~~VAYER~~I~~KKRARSEESCVPLKYL  
 Bm-dNK NNTLHPAQ~~E~~AVLDEWER~~E~~IQHNI~~P~~AD~~L~~LIVYLRTS~~PS~~IVYQ~~R~~IKKRARSEEQCVPLSYI

Ae-dNK QELHELHEN~~W~~LHGTFPRV-APVLVLDAD~~L~~DLHNISSEYKRSE~~T~~SILK---PIL~~I~~ONTNO  
 Ag-dNK KELHELHEN~~W~~LHGASPRP-APVLVLDAD~~L~~DLNTIGAEYERSE~~T~~SILK---PIL~~I~~ENTNO  
 Dm-dNK QELHELHED~~W~~LHQRRPOS-CKVLVLDAD~~L~~DLNENIGTEYORSE~~S~~SIFD---AIS-SNOQP  
 Bm-dNK EELHRLHED~~W~~LINRIHAEC~~P~~APVLVLDAD~~L~~DLSCITDEYKRSE~~H~~OLLKAVNVVMSSPNK

## nuclear import signal

Ae-dNK H----PILASPSKR~~S~~RTEF--  
 Ag-dNK H----AILTSPAKRA~~K~~ITDF--  
 Dm-dNK S----PVLVSPSKR~~R~~QVAR--  
 Bm-dNK HSPKKPTST~~P~~IKIT~~P~~PHMRIL

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Fig. 1